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RAW SEQUENCE LISTING

DATE: 09/12/2002

PATENT APPLICATION: US/10/071,499A

TIME: 15:33:00

Input Set : A:\8702-0100.ST25.txt

Output Set: N:\CRF4\09122002\J071499A.raw

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3 <110> APPLICANT: WOLFMAN, NEIL
 4 KHOR, SOO-PEANG
 6 <120> TITLE OF INVENTION: MODIFIED AND STABILIZED GDF PROPEPTIDES AND USES THEREOF
 8 <130> FILE REFERENCE: 08702-0100-00000
 10 <140> CURRENT APPLICATION NUMBER: 10/071,499A
 C--> 11 <141> CURRENT FILING DATE: 2002-09-04
 13 <160> NUMBER OF SEQ ID NOS: 16
 15 <170> SOFTWARE: PatentIn version 3.1
 17 <210> SEQ ID NO: 1
 18 <211> LENGTH: 375
 19 <212> TYPE: PRT
 20 <213> ORGANISM: Homo sapiens
 22 <400> SEQUENCE: 1
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 25 1 5 10 15
 28 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 29 20 25 30
 32 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 33 35 40 45
 36 Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 37 50 55 60
 40 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Val Ile Arg Gln Leu
 41 65 70 75 80
 44 Leu Pro Lys Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp Val
 45 85 90 95
 48 Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 49 100 105 110
 52 Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
 53 115 120 125
 56 Met Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 57 130 135 140
 60 Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 61 145 150 155 160
 64 Arg Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 65 165 170 175
 68 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 69 180 185 190
 72 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 73 195 200 205
 76 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 77 210 215 220
 80 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 81 225 230 235 240

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84 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
85          245          250          255
88 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
89          260          265          270
92 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
93          275          280          285
96 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
97          290          295          300
100 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
101 305          310          315          320
104 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
105          325          330          335
108 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
109          340          345          350
112 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
113          355          360          365
116 Val Asp Arg Cys Gly Cys Ser
117          370          375
120 <210> SEQ ID NO: 2
121 <211> LENGTH: 1125
122 <212> TYPE: DNA
123 <213> ORGANISM: Homo sapiens
125 <400> SEQUENCE: 2
126 atgcaaaaac tgcaactctg tgtttatatt tacctgttta tgctgattgt tgctggtcca      60
128 gtggatctaa atgagaacag tgagcaaaaa gaaaatgtgg aaaaagaggg gctgtgtaat      120
130 gcatgtactt ggagacaaaa cactaaatct tcaagaatag aagccattaa gatacaaatc      180
132 ctacagtaaac ttcgtctgga aacagctcct aacatcagca aagatgttat aagacaactt      240
134 ttacccaaag ctctccact ccgggaaactg attgatcagt atgatgtcca gagggatgac      300
136 agcagcgatg gctctttgga agatgacgat tatcacgcta caacggaaac aatcattacc      360
138 atgcctacag agtctgattt tctaatagcaa gtggatggaa aacccaaatg ttgcttcttt      420
140 aaatttagct ctaaaaataca atacaataaaa gtagtaaagg cccaactatg gatataattg      480
142 agaccgctcg agactcctac aacagtgttt gtgcaaatcc tgagactcat caaacctatg      540
144 aaagacggta caaggtatac tggaatccga tctctgaaac ttgacatgaa cccaggcact      600
146 ggtatttggc agagcattga tgtgaagaca gtgttgcaaa attggctcaa acaacctgaa      660
148 tccaacttag gcattgaaat aaaagcttta gatgagaatg gtcattgatct tgctgtaacc      720
150 ttcccaggac caggagaaga tgggctgaat ccgttttttag aggtcaagggt aacagacaca      780
152 ccaaaaagat ccagaaggga ttttggctct gactgtgatg agcactcaac agaatacaga      840
154 tgctgtcgtt accctctaac tgttgatttt gaagcttttg gatgggattg gattatcgct      900
156 cctaaaagat ataaggccaa ttactgctct ggagagtgtg aatttgtatt tttacaaaaa      960
158 tctctcata ctcatctggt acaccaagca aaccccagag gttcagcagg cccttgctgt      1020
160 actcccacaa agatgtctcc aattaatatg ctatatatta atggcaaaga acaaataata      1080
162 tatgggaaaa ttccagcgat ggtagtagac cgctgtgggt gctca      1125
165 <210> SEQ ID NO: 3
166 <211> LENGTH: 109
167 <212> TYPE: PRT
168 <213> ORGANISM: Homo sapiens
170 <400> SEQUENCE: 3
172 Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys
173 1          5          10          15

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176 Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
177          20          25          30
180 Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu
181          35          40          45
184 Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala
185          50          55          60
188 Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
189 65          70          75          80
192 Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly
193          85          90          95
196 Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
197          100          105
200 <210> SEQ ID NO: 4
201 <211> LENGTH: 327
202 <212> TYPE: DNA
203 <213> ORGANISM: Homo sapiens
205 <400> SEQUENCE: 4
206 gatttttggtc ttgactgtga tgagcactca acagaatcac gatgctgtcg ttaccctcta      60
208 actgtggatt ttgaagcttt tggatgggat tggattatcg ctctaaaaag atataaggcc      120
210 aattactgct ctggagagtg tgaatttgta tttttacaaa aatatacctca tactcatctg      180
212 gtacaccaag caaaccccag aggttcagca ggcccttgcg gtactccac aaagatgtct      240
214 ccaattaata tgctatatatt taatggcaaa gaacaaataa tatatgggaa aattccagcg      300
216 atggtagtag accgctgtgg gtgctca      327
219 <210> SEQ ID NO: 5
220 <211> LENGTH: 243
221 <212> TYPE: PRT
222 <213> ORGANISM: Homo sapiens
224 <400> SEQUENCE: 5
226 Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
227 1          5          10          15
230 Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
231          20          25          30
234 Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
235          35          40          45
238 Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
239          50          55          60
242 Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
243 65          70          75          80
246 Gly Ser Leu Glu Asp Asp Asp Tyr His Ala Thr Thr Glu Thr Ile Ile
247          85          90          95
250 Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Val Asp Gly Lys Pro
251          100          105          110
254 Lys Cys Cys Phe Phe Lys Phe Ser Lys Ile Gln Tyr Asn Lys Val
255          115          120          125
258 Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
259          130          135          140
262 Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
263 145          150          155          160
266 Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly

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267          165          170          175
270 Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr Val Leu Gln Asn Trp
271          180          185          190
274 Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
275          195          200          205
278 Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
279          210          215          220
282 Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
283 225          230          235          240
286 Ser Arg Arg
290 <210> SEQ ID NO: 6
291 <211> LENGTH: 729
292 <212> TYPE: DNA
293 <213> ORGANISM: Homo sapiens
295 <400> SEQUENCE: 6
296 aatgagaaca gtgagcaaaa agaaaatgtg gaaaaagagg ggctgtgtaa tgcattgtact      60
298 tggagacaaa acactaaatc ttcaagaata gaagccatta agatacaaat cctcagtaaa      120
300 cttcgtctgg aaacagctcc taacatcagc aaagatgtta taagacaact tttacccaaa      180
302 gctcctccac tccgggaact gattgatcag tatgatgtcc agaggggatga cagcagcgat      240
304 ggctctttgg aagatgacga ttatcacgct acaacggaaa caatcattac catgcctaca      300
306 gagtctgatt ttctaattgca agtggatgga aaacccaaat gttgcttctt taaatttagc      360
308 tctaaaatac aatacaataa agtagtaaaag gcccaactat ggatataatt gagaccgctc      420
310 gagactccta caacagtgtt tgtgcaaatc ctgagactca tcaaacctat gaaagacggt      480
312 acaaggtata ctggaatccg atctctgaaa cttgacatga acccaggcac tggatatttg      540
314 cagagcattg atgtgaagac agtgttgcaa aattggctca aacaacctga atccaactta      600
316 ggcattgaaa taaaagcttt agatgagaat ggtcatgatc ttgctgtaac cttcccagga      660
318 ccaggagaag atgggctgaa tccgttttta gaggtcaagg taacagacac accaaaaaga      720
320 tccagaagg
323 <210> SEQ ID NO: 7
324 <211> LENGTH: 407
325 <212> TYPE: PRT
326 <213> ORGANISM: Homo sapiens
328 <400> SEQUENCE: 7
330 Met Val Leu Ala Ala Pro Leu Leu Leu Gly Phe Leu Leu Leu Ala Leu
331 1          5          10          15
334 Glu Leu Arg Pro Arg Gly Glu Ala Ala Glu Gly Pro Ala Ala Ala Ala
335          20          25          30
338 Ala Ala Ala Ala Ala Ala Ala Ala Gly Val Gly Gly Glu Arg Ser
339          35          40          45
342 Ser Arg Pro Ala Pro Ser Val Ala Pro Glu Pro Asp Gly Cys Pro Val
343          50          55          60
346 Cys Val Trp Arg Gln His Ser Arg Glu Leu Arg Leu Glu Ser Ile Lys
347 65          70          75          80
350 Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys Glu Ala Pro Asn Ile Ser
351          85          90          95
354 Arg Glu Val Val Lys Gln Leu Leu Pro Lys Ala Pro Pro Leu Gln Gln
355          100          105          110
358 Ile Leu Asp Leu His Asp Phe Gln Gly Asp Ala Leu Gln Pro Glu Asp
359          115          120          125

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362 Phe Leu Glu Glu Asp Glu Tyr His Ala Thr Thr Glu Thr Val Ile Ser
363      130      135      140
366 Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly Ser Pro Leu
367 145      150      155      160
370 Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr Lys Val Leu
371      165      170      175
374 Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg Pro Ala Thr
375      180      185      190
378 Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly Glu Gly Thr
379      195      200      205
382 Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile Arg Ser Leu
383      210      215      220
386 Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser Ile Asp Phe
387 225      230      235      240
390 Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser Asn Trp Gly
391      245      250      255
394 Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu Ala Val Thr
395      260      265      270
398 Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met Glu Leu Arg
399      275      280      285
402 Val Leu Glu Asn Thr Lys Arg Ser Arg Arg Asn Leu Gly Leu Asp Cys
403      290      295      300
406 Asp Glu His Ser Ser Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
407 305      310      315      320
410 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
411      325      330      335
414 Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu Tyr Met Phe Met Gln Lys
415      340      345      350
418 Tyr Pro His Thr His Leu Val Gln Gln Ala Asn Pro Arg Gly Ser Ala
419      355      360      365
422 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
423      370      375      380
426 Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val
427 385      390      395      400
430 Val Asp Arg Cys Gly Cys Ser
431      405

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434 <210> SEQ ID NO: 8

435 <211> LENGTH: 1221

436 <212> TYPE: DNA

437 <213> ORGANISM: Homo sapiens

439 <400> SEQUENCE: 8

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444 gcggggggtcg ggggggagcg ctccagccgg ccagccccgt ccgtggcgcc cgagccggac      180
446 ggctgccccg tgtgcgtttg gcggcagcac agccgcgagc tgcgcctaga gagcatcaag      240
448 tcgcagatct tgagcaaaact gcggtcaag gaggcgcccc acatcagccg cgaggtggtg      300
450 aagcagctgc tgcccaaggc gccgcgctg cagcagatcc tggacctaca cgacttccag      360
452 ggcgacgcgc tgcagcccga ggacttcctg gaggaggacg agtaccacgc caccaccgag      420
454 accgtcatta gcatggccca ggagacggac ccagcagtac agacagatgg cagccctctc      480

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VERIFICATION SUMMARY

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